The arrival and consistent development of MOS-controlled power semiconductor components has helped the entire field of power electronics towards a breakthrough regarding high power density and system efficiency. It has also improved reliability and made economical technical solutions possible. The key technology, facilitating the wide power range of a few hundred watts to the region many megawatts, has been the IGBT. The aim of this book is to make the basics specific to IGBT as they interact with the application accessible to readers. This book will provide students of power electronics with valuable information about the main contemporary power semiconductor components and their application while development engineers targeting power electronic converters will find all the essentials of selecting, dimensioning and applying IGBT modules laid out clearly and comprehensively.

Andreas Volke studied Electrical Energy Technologies at Soest University of Applied Sciences. After working as a hardware and software development engineer, he was employed by Siemens in 1997, were he took up a position as commissioning engineer in worldwide deployment. In 2003 he joined Infineon Technologies in Warstein (Germany) (formerly eupec) as an application engineer for IGBT modules and IGBT driver. He then managed application engineering in the Asia Pacific region, covering industrial and consumer applications until 2011. Currently he holds the position of Senior Manager – Stack Development.

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